

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-8 (cancelled).

9. (new): A method for defruiting the transponder responses received by a secondary radar in response to interrogations emitted by the radar in a recurrent manner, a recurrence being formed by the interrogation and the responses received in the course of a listening period following the interrogation, the defruiting method comprising a test of the synchronism of the responses received in various recurrences, a first response received in a recurrence  $i$  being considered synchronous with a second response received in another recurrence  $j$  if:

$$\rho_j \in [\rho_i - V_{\max} \times (t_j - t_i); \rho_i - V_{\min} \times (t_j - t_i)] \text{ when } t_j > t_i, \text{ or}$$

$$\rho_j \in [\rho_i - V_{\min} \times (t_j - t_i); \rho_i - V_{\max} \times (t_j - t_i)] \text{ when } t_j < t_i,$$

where:

[[ - ]]  $V_{\min}$  and  $V_{\max}$  are respectively the minimum and maximum radial speed of the transponders with respect to the secondary radar, positive by convention for a transponder approaching the radar, the speeds  $V_{\min}$  and  $V_{\max}$  possibly being equal, at least  $V_{\min}$  or  $V_{\max}$  being nonzero;

[[ - ]]  $\rho_i$  and  $\rho_j$  are respectively the distance at which the transponder has been detected in recurrence  $i$  and in recurrence  $j$ ;

[[ - ]]  $t_i$  and  $t_j$  are respectively the instant of emission of the interrogation in recurrence  $i$  and in recurrence  $j$ .

10. (new): The method as claimed in claim 9, wherein a distance tolerance is used to perform the synchronism test.

11. (new): A method of defruiting in which defruiting methods as claimed in claim 9 are applied in parallel to different radial speed bins [  $V_{min}$ ;  $V_{max}$  ].

12. (new): The method as claimed in claim 11, wherein the radial speed bins are contiguous.

13. (new): The method as claimed in claim 11, wherein the radial speed bins are equidistributed.

14. (new): The method as claimed in claim 9, wherein the synchronism test is performed in the far field only on the recurrences for which the interrogation azimuth lies in the effective interrogation lobe of the secondary radar.

15. (new): A defruiter for extractor of transponder responses comprising a correlation device configured to implement the method as claimed in claim 9.

16. (new): A secondary radar comprising a defruiter as claimed in claim 15.